

## NOAA In Your State

# Alaska

**NOAA** is an agency that enriches life through science. Our reach goes from the surface of the sun to the depths of the ocean floor as we work to keep citizens informed of the changing environment around them. From daily weather forecasts, severe storm warnings, and climate monitoring to fisheries management, coastal restoration and supporting marine commerce, NOAA's products and services support economic vitality and affect more than one-third of America's gross domestic product. NOAA's dedicated scientists use cutting-edge research and high-tech instrumentation to provide citizens, planners, emergency managers and other decision makers with reliable information they need when they need it.

The following is a summary of NOAA facilities, staff, programs, or activities based in, or focused on, your state or territory: Starting with highlights, then by [congressional districts and cities or towns](#), [coastal programs](#), and then [statewide programs](#).

### Highlights of NOAA in Alaska

<a href="#">Alaska Region Headquarters</a>	Anchorage	AK
<a href="#">Alaska Regional Climate Services Director</a>	Anchorage	AK
<a href="#">Fairbanks Command and Data Acquisition Station</a>	Fairbanks	AK
<a href="#">Kachemak Bay National Estuarine Research Reserve</a>	Homer	AK
<a href="#">Auke Bay Laboratories</a>	Juneau	AK
<a href="#">Kachemak Bay Habitat Focus Area</a>	Kachemak Bay	AK
<a href="#">NOAA Ship Fairweather</a>	Ketchikan	AK

The state of Alaska also has one Cooperative Institute, three Weather Forecasting Offices, two Regional Offices, five Labs and Field Offices, two Science on a Sphere® exhibitions, one National Estuarine Research Reserve, and one Habitat Focus Area.

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### Weather Forecast Offices

Anchorage AK

Barrow AK

Juneau AK

National Weather Service (NWS) Weather Forecast Offices (WFO) are staffed 24/7/365 and provide weather, water, and climate forecasts and warnings to residents of Alaska. There are 122 WFOs nationwide of which three are in Alaska. Highly trained forecasters issue warnings and forecasts for events, including severe thunderstorms, tornadoes, hurricanes, winter storms, floods, and heat waves to the general public, media, emergency management and law enforcement officials, the aviation and marine communities, agricultural interests, businesses, and others. Information is disseminated in many ways, including wireless emergency alerts, social media, [weather.gov](http://weather.gov), and NOAA Weather Radio All Hazards. Each WFO has a Warning Coordination Meteorologist who actively conducts outreach and educational programs that strengthen working relationships with local partners in emergency management, government, the media and academic communities. Forecasters provide Impact-based Decision Support Services (IDSS), both remotely and on-site during critical emergencies such as wildfires, floods and chemical spills, and major recovery efforts. To gather data for forecasting and other purposes, NWS WFO staff monitor, maintain and use Automated Surface Observing Stations and Doppler Weather Radar. In addition to the WFOs, NWS operates specialized national prediction centers and regional headquarters throughout the U.S. for a total of 168 operational units. Over 85% of NWS' workforce is in the field. For current Alaska weather, visit [www.weather.gov](http://www.weather.gov) and, on the national map, click on the relevant county or district.

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### Science On a Sphere®

Juneau AK

Juneau AK

Science On a Sphere (SOS) is a room-sized global display system that uses computers and video projectors to display planetary data onto a six-foot diameter sphere, analogous to a giant animated globe. Researchers at NOAA developed Science On a Sphere® as an educational tool to help illustrate Earth System science to people of all ages. Animated images of atmospheric storms, climate change, and ocean temperature can be shown on the sphere, which is used to explain in a way that is simultaneously intuitive and captivating what are sometimes complex environmental processes. They are located in the Juneau area- at Alaska State Museum and National Marine Fisheries Service's Ted Stevens Marine Research Institute.

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**AK-At Large  
Anchorage**

**National Environmental Satellite, Data, and Information Service (NESDIS) - [National Centers for Environmental Information](#) - [Alaska Regional Climate Services Director](#)**

NOAA's six Regional Climate Services Directors (RCSDs), which are part of NCEI, support the development and delivery of a wide range of place-based climate science and information products and services to help people make informed decisions. RCSDs regularly communicate with stakeholders about climate information needs, and help build and strengthen active partner networks with public and private constituents. They play a primary role in integrating the work within NOAA and among its partners engaged in developing and delivering climate services at the regional level. These efforts serve to increase the value of climate information to users and support more efficient, cost-effective delivery of products and services.

**National Marine Fisheries Service (NMFS) - [Fisheries Monitoring and Analysis Division Anchorage Field Office](#)**

The Alaska Fisheries Science Center's Fisheries Monitoring and Analysis Division conducts research associated with sampling commercial fishery catches, estimation of catch and bycatch mortality, and analysis of fishery-dependent data. The Anchorage Field Station is involved in debriefing and oversight of fishery observers who collect catch data onboard fishing vessels and at onshore processing plants. Division staff process data and make it available to the Sustainable Fisheries Division of the Alaska Regional Office for quota monitoring and to scientists in other Alaska Fisheries Science Center divisions for stock assessment, ecosystem investigations, and an array of research investigations.

**National Marine Fisheries Service (NMFS) - [Seafood Inspection Office](#)**

NOAA's Seafood Inspection Program conducts a voluntary inspection program for fishery products on a fee-for-service basis. The office offers a wide range of services to the area's fishermen and fish processors including process and product inspection, product grading, lot inspection, laboratory analysis, and training. Export health certificates as required by most countries are issued for U.S. exporters. All edible foodstuffs, ranging from whole fish to formulated products, as well as fishmeal used for animal foods, are eligible for inspection and certification.

**National Ocean Service (NOS) - [Port of Anchorage PORTS](#)**

A Physical Oceanographic Real-Time System (PORTS<sup>®</sup>) is operated cooperatively with the local maritime community in the Port of Anchorage at which real-time data are quality-controlled and disseminated to local users for safe and efficient navigation. Real-time data are available for water levels and meteorological data from two stations, Anchorage and Nikiski.

**National Weather Service (NWS) - [Alaska Region Headquarters](#)**

Located in downtown Anchorage at the New Federal Building and U.S. Court House, the NWS Alaska Region Headquarters is the administrative and support center for field operations across the state of Alaska, including 3 NWS Weather Forecast Offices, 12 NWS Weather Service Offices (remote field offices), an aviation-focused centers, a NWS River Forecast Center, and the NWS National Tsunami Warning Center. Services provided by a regional headquarters to local NWS offices within the region include scientific support and development, program management and guidance, field support for new program implementation, budget support, and employee recruitment and assistance. The headquarters is also the home office of the Alaska Region Director, who oversees the management and administration of the NWS entities listed above, as well as other region-level officials and program managers.

**National Weather Service (NWS) - [Alaska-Pacific River Forecast Center](#)**

Co-located with the NWS Weather Forecast Office in Anchorage, the NWS Alaska-Pacific River Forecast Center (RFC) performs continuous river basin modeling and provides hydrologic forecast and guidance products for rivers and streams

in Alaska and Hawaii. These products include forecasts of river stage and flow, probabilistic river forecasts, reservoir inflow forecasts, gridded precipitation estimates and forecasts, spring flood outlooks, and flash flood and headwater guidance. Some of the RFCs in the western and central U.S. also provide water supply forecasts. RFCs work closely with local, state and federal water management agencies, including the U.S. Army Corps of Engineers, U.S. Bureau of Reclamation, and U.S. Geological Survey, to provide critical water and flood information for critical decisions (aka Impact-based Decision-Support Services or IDSS).

**National Weather Service (NWS) - [Alaska Aviation Weather Unit](#) and [Anchorage Volcanic Ash Advisory Center for the North Pacific](#)**

Housed in the Federal Aviation Administration's Anchorage Air Route Traffic Control Center (ARTCC), the NWS Alaska Aviation Weather Unit staff provides in route aviation weather forecasts and warnings to ARTCC personnel for use in directing the safe, smooth flow of aviation traffic across the entire State of Alaska, including the Aleutian Islands, the Bering Sea, and the North Pacific. The unit also serves as the Volcanic Ash Advisory Center for the North Pacific within the boundaries of the Alaska flight information region and northeast Russia. There are only nine Volcanic Ash Advisory Centers worldwide. The Anchorage Volcanic Ash Advisory Center covers air routes over some of the most active volcanic areas in the world.

**National Weather Service (NWS) - [Weather Forecast Office](#)- See [Page 2](#) for details.**

**NOAA Commissioned Officer Corps (NOAA Corps) - [Resource Specialist, Habitat Conservation](#)**

The NOAA Commissioned Officer Corps stations an officer at the National Marine Fisheries Service (NMFS) Field Office in support of NMFS Operations, representing the Alaska Region in various capacities. The officer's primary mission is to support the Division of Habitat Conservation as a Special Assistant and Resource Specialist to the Acting Regional Administrator for Habitat Conservation. The officer additionally serves as a liaison to the USCG during Regional Response Team efforts to protect marine resources from oil spills, and conducts large-scale inter-agency collaborations as needed, a key part of NOAA's response.

**NOAA Commissioned Officer Corps (NOAA Corps) - [Navigation Manager, Alaska](#)**

The NOAA Commissioned Officer Corps stations an officer with the Navigation Services Division of the National Ocean Service in support of NOAA's mission of Promoting Safe Navigation by interacting and working closely with the entire maritime community, including the USCG, US Navy, US Army Corps of Engineers, state and local authorities, Alaskan native communities, and various public interest groups. This officer focuses on resolving charting and navigation questions by educating constituents on charting technologies and their uses, and soliciting feedback on NOAA's navigation products and services from the Alaskan maritime community. This position is a critical link between NOAA and Alaska's unique culture, blending maritime commerce, traditional subsistence lifestyles, homeland security, and environmental stewardship.

**[Annette](#)**

**National Weather Service (NWS) - [Weather Service Office](#)**

Located in the Southeast Alaskan village of Metlakatla on Annette Island, this NWS Weather Service Office (WSO) provides expert hydro-meteorological data in support of local, regional, national, and global weather, hydrologic, climatic, and warning programs in accordance with the NWS mission. The WSO also supports the mission of their associated NWS Weather Forecast Office (WFO) in Juneau, as well as the agency's goals through value-added public service, education, and outreach.

*Aleknagik, Bethel, Cordova, Deadhorse, Denali, Fairbanks, Glennallen, Gustavus, Igotuk, Kenai, King Salmon, Metlakatla, Port Alsworth, Red Dog Mine, Ruby, Sand Point, Selawik, Sitka, St. Paul, Tok, Toolik Lake, Utqiagvik, Yakutat*

**Office of Oceanic and Atmospheric Research (OAR) - [U.S. Climate Reference Network](#)**

The US Climate Reference Network (USCRN) is an operationally viable research network of more than 138 climate stations that are deployed nationwide. Data from the USCRN are used in various climate monitoring activities and for placing current climate anomalies into an historical perspective. The USCRN provides the United States with a reference network that contributes to an International network under the auspices of the Global Climate Observing System (GCOS). ARL/ATDD manages the USCRN in partnership with NOAA's NESDIS/NCEI.

**[Barrow](#)**

**National Weather Service (NWS) - [Weather Service Office](#)**

Located in the village of Barrow, the farthest north community in the United States, this NWS Weather Service Office (WSO) provides expert hydro-meteorological data in support of local, regional, national, and global weather, hydrologic, climatic, and warning programs in accordance with the NWS mission. The WSO also supports the mission of their associated NWS Weather Forecast Office (WFO) in Fairbanks, as well as the agency's goals through value-added public service, education, and outreach.

**Office of Oceanic and Atmospheric Research (OAR) - [Halocarbon Measurements](#)**

NOAA's Earth System Research Laboratory Global Monitoring Laboratory (ESRL/GML) operates a sampling network to measure the distribution and trends of the gases most responsible for human-caused depletion of the stratospheric ozone layer. Weekly samples are collected in high-pressure flasks at fixed locations. The air sample flasks are delivered to ESRL/GML, located in Boulder, CO for analysis. Some locations conduct continuous surface measurements on site. Halocarbon measurements help determine the effectiveness of efforts to protect and restore the ozone layer - so it can protect us from the sun's ultraviolet radiation.

**Office of Oceanic and Atmospheric Research (OAR) - [Ozone Measurements](#)**

NOAA's Earth System Research Laboratory Global Monitoring Laboratory (ESRL/GML) makes measurements of the column amounts of ozone between the earth's surface and the top of the atmosphere at a number of locations around the United States, including American Samoa. The observations are obtained with ground-based spectrometers that measure the attenuation by ozone of ultraviolet light. These observations represent NOAA global stratospheric ozone network and are used to track recovery of the stratospheric ozone layer in compliance with the USA Clean Air act of 1990. The integrated ozone amount is critical in determining the amount of ultraviolet radiation reaching the earth's surface. Excess ultraviolet radiation is responsible for human skin cancer and is also harmful to other biogenic organisms. Column ozone measurements monitor changes in the stratospheric ozone layer resulting from human-produced chlorine and bromine compounds that destroy ozone. With controls now in place on the manufacture and use of these ozone-destroying compounds, it will be important to monitor the ozone layer for the expected recovery and determine whether other factors such as long-term climate change are influencing this recovery.

**Office of Oceanic and Atmospheric Research (OAR) - [Surface Aerosol Monitoring](#)**

NOAA's Earth System Research Laboratory Global Monitoring Laboratory(ESRL/GML) operates surface-based aerosol monitoring sites in six states and one territory (Puerto Rico). ESRL/GML's aerosol monitoring capabilities include continental sites in response to the finding that human activities primarily influence aerosols on regional/continental scales rather than on global scales. Aerosols create a significant perturbation of the Earth's radiative balance on regional scales. The measurements made include aerosol optical properties (how the particles absorb and scatter solar radiation), aerosol number concentration and chemical composition of the aerosol particles.

### **Bethel**

#### **National Weather Service (NWS) - [Weather Service Office](#)**

Located in the village of Bethel near the mouth of the Yukon and Kuskokwim Rivers, this NWS Weather Service Office (WSO) provides expert hydro-meteorological data in support of local, regional, national, and global weather, hydrologic, climatic, and warning programs in accordance with the NWS mission. The WSO also supports the mission of their associated NWS Weather Forecast Office (WFO) in Anchorage, as well as the agency's goals through value-added public service, education, and outreach.

#### **Office of Oceanic and Atmospheric Research (OAR) - [US Climate Reference Network](#)**

The US Climate Reference Network (USCRN) is an operationally viable research network of more than 138 climate stations that are deployed nationwide. Data from the USCRN are used in various climate monitoring activities and for placing current climate anomalies into an historical perspective. The USCRN provides the United States with a reference network that contributes to an International network under the auspices of the Global Climate Observing System (GCOS). ARL/ATDD manages the USCRN in partnership with NOAA's NESDIS/NCEI.

### **Cold Bay**

#### **National Weather Service (NWS) - [Weather Service Office](#)**

Located in the village of Cold Bay near the western end of the Alaska Peninsula, this NWS Weather Service Office (WSO) provides expert hydro-meteorological data in support of local, regional, national, and global weather, hydrologic, climatic, and warning programs in accordance with the NWS mission. The WSO also supports the mission of their associated NWS Weather Forecast Office (WFO) in Anchorage, as well as the agency's goals through value-added public service, education, and outreach.

#### **Office of Oceanic and Atmospheric Research (OAR) - [Cooperative Global Air Sampling Network](#)**

NOAA's Earth System Research Laboratory Global Monitoring Laboratory (ESRL/GML) operates a Cooperative Global Air Sampling Network to measure the distribution and trends of carbon dioxide (CO<sub>2</sub>) and methane (CH<sub>4</sub>), the two gases most responsible for human-caused climate change, as well as other greenhouse gases and volatile organic compounds. Samples are collected weekly at fixed locations and on several commercial ships. The air samples are delivered to ESRL/GML, located in Boulder, CO. The observed geographical patterns and small but persistent spatial gradients are used to better understand the processes, both natural and human induced, that underlie the trends. These measurements help determine the magnitude of carbon sources and sinks in North America.

### **Dutch Harbor**

#### **National Marine Fisheries Service (NMFS) - [Fisheries Monitoring and Analysis Division](#)**

The Alaska Fisheries Science Center's Fisheries Monitoring and Analysis Division conducts research associated with sampling commercial fishery catches, estimation of catch and bycatch mortality, and analysis of fishery-dependent data. The Dutch Harbor Field Station is involved in providing in-season support to fishery observers who collect catch data onboard fishing vessels and at onshore processing plants. Division staff also respond to fishing industry requests for vessel inspections and pre-cruise meetings and provide the industry with information on the methods of collecting fishery dependent data and how fishery managers use it.

#### **National Marine Fisheries Service (NMFS) - NOAA Fisheries Seafood [Inspection Office](#)**

NOAA's Seafood Inspection Program conducts a voluntary inspection program for fishery products on a fee-for-service basis. The office offers a wide range of services to the area's fishermen and fish processors including process and



product inspection, product grading, lot inspection, laboratory analysis, and training. All edible foodstuffs, ranging from whole fish to formulated products, as well as fishmeal used for animal foods, are eligible for inspection and certification.

### **[Fairbanks](#)**

#### **National Environmental Satellite, Data, and Information Service (NESDIS) - [Office of Satellite and Product Operations](#) - [Fairbanks Command and Data Acquisition Station](#)**

The Fairbanks Command Data Acquisition (CDA) Station provides complete command, data acquisition, and preprocessing, as well as launch and early orbit support, of NOAA's polar-orbiting spacecraft along with DOD, NASA, USGS, and international Earth observation satellites. The site also provides ground station services for GOES-West and the Deep Space Climate Observer (DSCOVR) with its high-gain antennas. Remotely operated equipment and antennas located in Barrow augment Fairbanks assets by increasing contact times with polar-orbiting spacecraft. The Fairbanks CDA Station also houses two search and rescue (SARSAT) antenna and associated ground equipment. These ground systems, referred to as Local User Terminals (LUTs) can receive signals, relayed through polar orbiting satellites, from ships, aircraft or individuals in distress. The location of the distress signal is automatically forwarded to the SARSAT Mission Control Center which notifies the appropriate Rescue Coordination Center. SARSAT is part of an international humanitarian effort helping to improve the rescue of persons in distress and has saved more than 9,350 lives in the United States since 1982.

**National Weather Service (NWS) - [Weather Forecast Office](#)**- See [Page 2](#) for details.

#### **Office of Oceanic and Atmospheric Research (OAR) - [Ozone Measurements](#)**

NOAA's Earth System Research Laboratory Global Monitoring Laboratory (ESRL/GML) makes measurements of the column amounts of ozone between the earth's surface and the top of the atmosphere at a number of locations around the United States, including American Samoa. The observations are obtained with ground-based spectrometers that measure the attenuation by ozone of ultraviolet light. These observations represent NOAA global stratospheric ozone network and are used to track recovery of the stratospheric ozone layer in compliance with the USA Clean Air act of 1990. The integrated ozone amount is critical in determining the amount of ultraviolet radiation reaching the earth's surface. Excess ultraviolet radiation is responsible for human skin cancer and is also harmful to other biogenic organisms. Column ozone measurements monitor changes in the stratospheric ozone layer resulting from human-produced chlorine and bromine compounds that destroy ozone. With controls now in place on the manufacture and use of these ozone-destroying compounds, it will be important to monitor the ozone layer for the expected recovery and determine whether other factors such as long-term climate change are influencing this recovery.

#### **Office of Oceanic and Atmospheric Research (OAR) - [Alaska Center for Climate Assessment and Policy](#)**

The Alaska Center for Climate Assessment and Policy (ACCAP) is a cooperative agreement between NOAA's Climate Program Office (CPO) and the University of Alaska Fairbanks. It is one of several Regional Integrated Sciences and Assessments (RISA) teams contributing to the development of knowledge, expertise, and abilities of decision-makers to plan and prepare for climate variability and change. ACCAP partners with stakeholders to inform realistic community plans and climate adaptation strategies using the most scientifically accurate, reliable, and up-to-date information. Stakeholder interaction and outreach is integrated into every aspect of our work, including climate modeling and addressing regional vulnerabilities. These interactions include needs assessment, vulnerability assessment, as well as user collaboration in downscaling models, designing research studies, and developing, testing, and evaluating research information products and tools. ACCAP's core activities integrate research and decision-support tool innovation. ACCAP's work encompasses the entire state of Alaska. ACCAP focuses on coastal and living marine resources, applied climate downscaling, water availability, sea ice, wildfire, tribal impacts, and community adaptation planning. Core partners of ACCAP include the University of Alaska Fairbanks, the International Arctic Research Center, and Alaska Sea Grant.

**Office of Oceanic and Atmospheric Research (OAR) - [N-Wave NOAA Science Network](#)**

N-Wave is NOAA's science network connecting NOAA, academic, and state research network communities to data and resources needed to advance environmental science.

**[Homer](#)**

**National Ocean Service (NOS) - [Kachemak Bay National Estuarine Research Reserve](#)**

The National Estuarine Research Reserve System is a network of protected areas focused on long-term research, monitoring, stewardship, education, and training. NOAA's Office for Coastal Management provides funding and national guidance, and each site is managed on a daily basis by a lead state agency or university with input from local partners. The 372,000 acre Kachemak Bay Research Reserve, designated in 1999 and managed by the University of Alaska Anchorage Alaska Center for Conservation Science, is the largest reserve in the Research Reserve System. It includes the Bay itself, which is contiguous to the southeastern entrance to Cook Inlet in south-central Alaska; the Fox River Flats, a river delta at the head of the Bay; and portions of Kachemak Bay State Park and Wilderness Park.

**National Ocean Service (NOS) – [Margaret A. Davidson Graduate Fellowship](#)**

The Margaret A. Davidson Graduate Fellowship program funds graduate student research and professional development opportunities within the National Estuarine Research Reserve System. The program supports collaborative research addressing local management challenges that may influence future policy and management strategies. The Davidson Fellow at Kachemak Bay National Estuarine Research Reserve will focus their research on groundwater vulnerability in coupled human-natural systems.

**[Juneau](#)**

**National Marine Fisheries Service (NMFS) - [Auke Bay Laboratories](#)**

The Alaska Fisheries Science Center's Auke Bay Laboratories (ABL) conducts scientific research throughout Alaska on commercially marketable species such as rockfish, sablefish, and salmon as well as ecologically important species such as herring and sharks. ABL research covers all aspects of marine ecosystems, such as ocean physics and chemistry, essential fish habitats and the structure and functioning of marine food webs. Information products are provided to the North Pacific Fishery Management Council, the NMFS Alaska Regional Office, fishing industries, state and federal regulators, and international treaty bodies. Groups involved in managing human activities in Alaska's coastal environments base their actions on ABL's knowledge of the quantities and qualities of fish habitats in the affected areas. ABL operates and maintains a total of six facilities including [Auke Creek Research Station](#), [Ted Stevens Marine Research Institute](#), [Subport Dock and Warehouse](#), and [Little Port Walter Marine Station](#) on Baranof Island.

**National Weather Service (NWS) - [Weather Forecast Office](#)**- See [Page 2](#) for details.

**Office of Oceanic and Atmospheric Research (OAR) - [Science On a Sphere®](#)**- See [Page 2](#) for details.

**[Kachemak Bay](#)**

**National Ocean Service (NOS), National Marine Fisheries Service - [Kachemak Bay Habitat Focus Area](#)**

Kachemak Bay, in southern Cook Inlet, has been selected as a Habitat Focus Area under NOAA's Habitat Blueprint initiative, a cross-NOAA effort administered by NOAA Fisheries, Office of Habitat Conservation. As part of the Habitat Blueprint, NOAA has selected ten Habitat Focus Areas (HFAs), place-based locations across the country to maximize the effectiveness of habitat conservation. While each HFA focuses on individual habitat conservation goals outlined in their Implementation Plan, the overarching goal is to demonstrate results in a focused area in a short time period. Kachemak Bay provides productive habitat for fish and shellfish, and supports important recreational, subsistence, and commercial



fishing, marine transportation, tourism, and threatened and endangered species. However, the region has experienced declines in shrimp, crab, clams, herring, and chinook salmon populations that have not recovered despite fisheries closures. The ecological value of Kachemak Bay has already been recognized by the bay's designation as a State of Alaska Critical Habitat Area, and as a National Estuarine Research Reserve. NOAA's assets in the region include the Kasitsna Bay Laboratory. NOAA and state, local, tribal, and academic partners address the vulnerability of Kachemak Bay's habitats through new decision support tools for resource management, restoration projects, long-term monitoring and research activities, habitat mapping, and training and education programs in the area.

### ***Kenai Peninsula***

#### **National Marine Fisheries Service (NMFS) - [Restoration Center](#)**

The NOAA Restoration Center, within the Office of Habitat Conservation, works with private and public partners locally and nationwide to increase fisheries productivity by restoring coastal habitat. Our projects support sustainable fisheries, help recover threatened and endangered species, and reverse damage from disasters like oil spills, ship groundings, and severe storms. Since 1992, we have implemented more 3,300 coastal habitat restoration projects. We build powerful partnerships among Alaska's public, private, and non-profit organizations, including The Nature Conservancy, National Fish and Wildlife Foundation, and Trout Unlimited. Our projects continually demonstrate the benefits and effectiveness of locally based habitat conservation in Alaska. The Restoration Center also collaborated with NFWF and NOS to complete an Oil Spill Trajectory Analysis for the Arctic. In 2015, NMFS working with EVOS, USFWS, and ADF&G began a large scale restoration project which will address four major barriers to fish passage on the Kenai Peninsula opening up 116 miles of stream. In 2012 Chinook salmon in this area received a disaster declaration due to continued low returns. These restoration projects are underway with completion scheduled for 2018.

### ***Ketchikan***

#### **Office of Marine and Aviation Operations (OMAO) - [NOAA Ship Fairweather](#)**

The NOAA Ship *Fairweather* is managed by the Marine Operations Center-Pacific. *Fairweather* is homeported in Ketchikan, Alaska, and conducts coastal hydrographic surveys in Alaska and along the West Coast in support of NOAA's mission to promote the safety and efficiency of maritime transportation and commerce. The vessel is operated under the direction of officers from the NOAA Commissioned Officer Corps in concert with NOAA civilian Wage Mariners. The NOAA Corps today provides a cadre of professionals trained in engineering, earth sciences, oceanography, meteorology, fisheries science, and other related disciplines. Officers operate ships, fly aircrafts, conduct diving operations, and serve in other NOAA staff positions. NOAA Wage Mariners perform the deck, engineering, steward, and survey tech functions aboard NOAA vessels, providing critical support to NOAA missions.

#### **Office of Marine and Aviation Operations (OMAO) - [Ketchikan Port Office](#)**

The Office of Marine and Aviation Operations is currently working with the State of Alaska to restore the facility to an operational status using State and Federal funds. There is a civilian Port Captain on site managing port logistics and site maintenance as required.

### ***King Salmon***

#### **National Weather Service (NWS) - [Weather Service Office](#)**

Located in the Bristol Bay village of King Salmon, this NWS Weather Service Office (WSO) provides expert hydro-meteorological data in support of local, regional, national, and global weather, hydrologic, climatic, and warning programs in accordance with the NWS mission. The WSO also supports the mission of their associated NWS Weather Forecast Office (WFO) in Anchorage, as well as the agency's goals through value-added public service, education, and outreach.

## **Kodiak**

### **National Marine Fisheries Service (NMFS) - [Fisheries Monitoring and Analysis Division](#)**

The Alaska Fisheries Science Center's Fisheries Monitoring and Analysis Division conducts research associated with sampling commercial fishery catches, estimation of catch and bycatch mortality, and analysis of fishery-dependent data. The Kodiak Field Station is involved in providing in-season support to fishery observers who collect catch data onboard fishing vessels and at onshore processing plants. Division staff also provides the industry with information on the methods of collecting fishery dependent data and how it is used by fishery managers.

### **National Marine Fisheries Service (NMFS) - [Kodiak Fisheries Research Center](#)**

The Kodiak Fisheries Research Center (KFRC) is the primary facility for the AFSC's Resource Assessment and Conservation Engineering Division Shellfish Assessment Program. The Center also provides office space to employees of the Groundfish Assessment Program, the Fisheries Monitoring and Analysis Division, and the Alaska Regional Office. Resource assessment activities are primarily stock assessment surveys and related research on commercially important crab and fish in the eastern Bering Sea, Aleutian Islands, and Gulf of Alaska in support of catch quota determinations and management actions. A key product of the shellfish surveys is the annual Bering Sea Crab Survey Report, which is used to aid the fishing industry in locating productive fishing grounds and to provide stock assessment scientists with the data necessary to produce annual catch limits.

### **National Weather Service (NWS) - [Weather Service Office](#)**

Located at the nation's largest U.S. Coast Guard Base on the Island of Kodiak ("the Emerald Isle"), this NWS Weather Service Office (WSO) provides expert hydro-meteorological data in support of local, regional, national, and global weather, hydrologic, climatic, and warning programs in accordance with the NWS mission. The WSO also supports the mission of their associated NWS Weather Forecast Office (WFO) in Anchorage, as well as the agency's goals through value-added public service, education, and outreach.

### **Office of Marine and Aviation Operations (OMAO) - [NOAA Ship Oscar Dyson](#)**

The NOAA Ship *Oscar Dyson* is managed by the Marine Operations Center-Pacific. The *Oscar Dyson* is homeported in Kodiak, Alaska, and is the first of four acoustically quiet NOAA fishery survey vessels designed and built for NOAA. *Oscar Dyson* was commissioned May of FY 2005 and supports NOAA's mission to conserve, protect, manage, and restore living marine resources through ecosystem approaches to management. The vessel is operated under the direction of officers from the NOAA Commissioned Officer Corps in concert with NOAA civilian Wage Mariners. The NOAA Corps today provides a cadre of professionals trained in engineering, earth sciences, oceanography, meteorology, fisheries science, and other related disciplines. Officers operate ships, fly aircrafts, conduct diving operations, and serve in other NOAA staff positions. NOAA Wage Mariners perform the deck, engineering, steward, and survey tech functions aboard NOAA vessels, providing critical support to NOAA missions.

## **Kotzebue**

### **National Weather Service (NWS) - [Weather Service Office](#)**

Located in the northwest Alaskan village of Kotzebue, this NWS Weather Service Office (WSO) provides expert hydro-meteorological data in support of local, regional, national, and global weather, hydrologic, climatic, and warning programs in accordance with the NWS mission. The WSO also supports the mission of their associated NWS Weather Forecast Office (WFO) in Fairbanks, as well as the agency's goals through value-added public service, education, and outreach.

## **McGrath**

### **National Weather Service (NWS) - [Weather Service Office](#)**

Located along the Upper Kuskokwim River in the village of McGrath, this NWS Weather Service Office (WSO) provides expert hydro-meteorological data in support of local, regional, national, and global weather, hydrologic, climatic, and warning programs in accordance with the NWS mission. The WSO also supports the mission of their associated NWS Weather Forecast Office (WFO) in Anchorage, as well as the agency's goals through value-added public service, education, and outreach.

#### ***Nome***

##### **National Weather Service (NWS) - [Weather Service Office](#)**

Located on the Seward Peninsula at the end of the Iditarod Trail in the City of Nome, this NWS Weather Service Office (WSO) provides expert hydro-meteorological data in support of local, regional, national, and global weather, hydrologic, climatic, and warning programs in accordance with the NWS mission.

#### ***Palmer***

##### **National Weather Service (NWS) - [National Tsunami Warning Center](#)**

A part of the National Weather Service, the National Tsunami Warning Center (NTWC), has the primary responsibility for the detection, location, and determination of magnitude of potentially tsunamigenic earthquakes occurring in the coastal areas of Alaska, British Columbia, the U.S. West Coast, the U.S. and Canadian Atlantic coasts, and the U.S. Gulf of Mexico coast. The NTWC is responsible for the preparation and dissemination of tsunami warnings, watches, advisories, and information bulletins to civilian and military officials in its area of responsibility regardless of epicenter location.

##### **Office of Oceanic and Atmospheric Research (OAR) - [Ultraviolet Radiation Monitoring Network](#)**

NOAA's Earth System Research Laboratory Global Monitoring Laboratory (ESRL/GML) operates an ultraviolet radiation (UV) monitoring network in Alaska with sites at the Barrow Observatory, Nome, and St. Paul Island. These measurements are done as part of ESRL/GML's research on the Earth's surface radiation budget. Research efforts are devoted to the extent and cause of observed variations in long-term radiation and meteorological measurements, using satellite observations and climate model calculations. In addition, observations of spectral solar radiation are made for remote sensing of certain atmospheric constituents and spectral solar UV is measured for the investigation of the interaction of ozone and solar radiation. ESRL/GML also provides essential instrument calibration services for national and worldwide partner UV monitoring networks.

#### ***Poker Flat***

##### **Office of Oceanic and Atmospheric Research (OAR) - [Tall Tower Carbon Measurements](#)**

NOAA's Earth System Research Laboratory Global Monitoring Laboratory (ESRL/GML) operates trace gas monitoring sites at tall television transmitter towers, and other towers, in eight states, including Alaska. The sites were established to extend ESRL/GML's monitoring network into the interior of North America in order to provide data to aid estimation of the net carbon balance of the continent. Variations of trace gases, especially carbon dioxide (CO<sub>2</sub>), are largest near the ground, so existing tall towers are utilized as platforms for in situ and flask sampling for atmospheric trace gases. The tower site in Alaska is located at Poker Flat, north of Fairbanks.

#### ***Seldovia***

##### **National Ocean Service (NOS) - [Kasitsna Bay Laboratory](#)**

The Kasitsna Bay Laboratory (KBL) is the Alaska field station for both NCCOS and the National Marine Fisheries Service since the late 1950's. The University of Alaska Fairbanks helps NCCOS operate the Kasitsna Bay Laboratory. A wet/dry laboratory building which includes a 1,400 square foot running seawater laboratory hosts research on the coastal impacts of climate change, ocean acidification, harmful algal blooms, and monitoring and change of nearshore biodiversity. The laboratory also serves as a testbed for underwater technology in high-latitude coastal ecosystems and under rugged

conditions. Because of its remote location, the Kasitsna Bay Laboratory facilities include dormitory buildings with housing, kitchen, laundry and internet for up to 48 people.

### ***Shemya Island***

#### **Office of Oceanic and Atmospheric Research (OAR) - [Cooperative Global Air Sampling Network](#)**

NOAA's Earth System Research Laboratory Global Monitoring Laboratory (ESRL/GML) operates a Cooperative Global Air Sampling Network to measure the distribution and trends of carbon dioxide (CO<sub>2</sub>) and methane (CH<sub>4</sub>), the two gases most responsible for human-caused climate change, as well as other greenhouse gases and volatile organic compounds. Samples are collected weekly at fixed locations and on several commercial ships. The air samples are delivered to ESRL/GML, located in Boulder, CO. The observed geographical patterns and small but persistent spatial gradients are used to better understand the processes, both natural and human induced, that underlie the trends. These measurements help determine the magnitude of carbon sources and sinks in North America.

### ***St. Paul***

#### **National Weather Service (NWS) - [Weather Service Office](#)**

Located on St. Paul Island among the Pribilof Islands in the Bering Sea, this NWS Weather Service Office (WSO) provides expert hydro-meteorological data in support of local, regional, national, and global weather, hydrologic, climatic, and warning programs in accordance with the NWS mission. The WSO also supports the mission of their associated NWS Weather Forecast Office (WFO) in Anchorage, as well as the agency's goals through value-added public service, education, and outreach.

### ***Utqiagvik***

#### **Office of Oceanic and Atmospheric Research (OAR) - [Barrow Observatory](#)**

The Barrow Atmospheric Baseline Observatory (ABO) is one of four observatories operated by the NOAA Office of Oceanic and Atmospheric Research, Global Monitoring Laboratory, located in Boulder, CO. The observatories are part of a global network of observatories that acquire long-term records of atmospheric gases, aerosol particles, and surface radiation to study the causes and consequences of change. The Barrow ABO measures total column ozone above the observatory and monitors air pollution (Arctic haze) flowing across the Arctic from Eurasia to Alaska. The Barrow ABO is also host to cooperative research projects from various universities and government agencies from across the nation.

### ***Valdez***

#### **National Ocean Service (NOS) - [Valdez PORTS](#)**

A Physical Oceanographic Real-Time System (PORTS<sup>®</sup>) is operated cooperatively with the local maritime community around Valdez at which real-time data are quality-controlled and disseminated to local users for safe and efficient navigation. Real-time data are available from one water level (tide) station, meteorological observations at three locations and tidal currents from two locations around Valdez Harbor.

### ***Yakutat***

#### **National Weather Service (NWS) - [Weather Service Office](#)**

Located along the northeastern coast of the Gulf of Alaska in the village of Yakutat, this NWS Weather Service Office (WSO) provides expert hydro-meteorological data in support of local, regional, national, and global weather, hydrologic, climatic, and warning programs in accordance with the NWS mission. The WSO also supports the mission of their associated NWS Weather Forecast Office (WFO) in Juneau, as well as the agency's goals through value-added public service, education, and outreach.

## **Coastal**

### **National Marine Fisheries Service (NMFS) - [Restoration Center](#)**

The NOAA Restoration Center, within the Office of Habitat Conservation, works with private and public partners locally and nationwide to increase fisheries productivity by restoring coastal habitat. Our projects support sustainable fisheries, help recover threatened and endangered species, and reverse damage from disasters like oil spills, ship groundings, and severe storms. Since 1992, we have implemented more 3,300 coastal habitat restoration projects. We build powerful partnerships among Alaska's public, private, and non-profit organizations, including The Nature Conservancy, National Fish and Wildlife Foundation, and Trout Unlimited. Our projects continually demonstrate the benefits and effectiveness of locally based habitat conservation in Alaska. The Restoration Center also collaborated with NFWF and NOS to complete an Oil Spill Trajectory Analysis for the Arctic.

### **National Marine Fisheries Service (NMFS) - [Cooperation with States Program](#) and [Species Recovery Grants](#)**

Under the authority of section 6 of the Endangered Species Act, the Cooperation with States Program brings states, NMFS, and other partners together to recover threatened and endangered species. A total of 25 U.S. territories and coastal states, including Alaska, currently participate in this program. Competitive grants are awarded to states through the Species Recovery Grants to States Program to support management, monitoring, research and outreach efforts for species that spend all or a portion of their life cycle in state waters. The funded work is designed to prevent extinctions or reverse the decline of species, and restore ecosystems and their related socioeconomic benefits. The Alaska Department of Fish and Game has received multiple awards through this program, including grants to support projects focused on Cook Inlet beluga whales, the western distinct population segment of Steller sea lions, and listed ice seals.

### **National Marine Fisheries Service (NMFS) - [National Marine Mammal Stranding Network](#) and [John H. Prescott Marine Mammal Rescue Assistance Grant Program](#)**

The National Marine Mammal Stranding Network and its trained professionals respond to dead or live marine mammals in distress that are stranded, entangled, out of habitat or otherwise in peril. Our long-standing partnership with the Network provides valuable environmental intelligence, helping NOAA establish links among the health of marine mammals, coastal ecosystems, and coastal communities as well as develop effective conservation programs for marine mammal populations in the wild. There are 22 stranding network members in the state of Alaska.

NOAA Fisheries funds eligible members of the Stranding Network through the competitive John H. Prescott Marine Mammal Rescue Assistance Grant Program. In FY20, 43 competitive grants were awarded nationwide for a total of \$3.7 million, with four awards totalling \$285,008 going to recipients in Alaska: the Seward Association for the Advancement of Marine Science (Alaska Sealife Center), the Sun'aq Tribe of Kodiak, the University of Alaska Anchorage and the University of Alaska Fairbanks.

### **National Marine Fisheries Service (NMFS) - [Pacific Coastal Salmon Recovery Fund](#)**

The Pacific Coastal Salmon Recovery Fund (PCSRF) was established by Congress in 2000 to reverse the declines of Pacific salmon and steelhead by advancing the protection, restoration, and conservation of Pacific salmon and their habitats. The Fund is essential to prevent the extinction of 28 salmon species protected under the Endangered Species Act and also plays a vital role in supporting the economies of local communities from California to Alaska, upholding Tribal Treaty fishing rights and subsistence fishing traditions, and restoring all salmon populations to productive and viable levels along the entire West Coast. Since 2000, approximately 14,571 projects have restored more than 1.15 million acres of salmon habitat, opening over 11,489 miles of streams to spawning fish, with \$1.55 billion in grants leveraging over \$1.78 billion in contributions. Several studies suggest that a \$1 million investment in watershed restoration creates between 13 and 32 jobs and between \$2.2 and \$3.4 million in economic activity. In Alaska, there are 60 active projects.



**National Ocean Service (NOS) - [National Water Level Observation Network](#)**

NOS operates 27 long-term, continuously operating tide stations in the state of Alaska that provide data and information on tidal datum, relative sea level trends, and are capable of producing real-time data for tsunami and storm surge warning. These stations are located at Ketchikan, Port Alexander, Sitka, Juneau, Skagway, Elfin Cove, Yakutat, Cordova, Valdez, Seward, Seldovia, Nikiski, Anchorage, Kodiak Island, Alitak, Sand Point, Port Moller, King Cove, Adak Island, Atka, Nikolski, Unalaska, Port Moller, Village Cove (Pribilof Islands), Nome, Unalakleet, Red Dog Dock, and Prudhoe Bay. Each station is associated with a set of tidal benchmarks installed in the ground that is used to reference the height of the water levels to help connect the water level to land.

**National Ocean Service (NOS) - [Analytical Response Team](#)**

NOAA's Analytical Response Team (ART) works with Federal, academic, and state partners to respond to HAB and associated mortality events. They can provide rapid and accurate identification of harmful algae and their associated toxins to the management agencies responsible for, e.g. opening and closing fisheries, targeting monitoring, and responding to marine mammal mortality events. ART works nationally, processing samples and providing expertise upon request. This year ART has responded to events related to harmful algal blooms on the West Coast.

**National Ocean Service (NOS) - [Phytoplankton Monitoring Network](#)**

The Phytoplankton Monitoring Network (PMN) engages volunteers in monitoring marine phytoplankton and HABs. Data collected by PMN volunteers is used to better understand species composition and distribution in coastal and Great Lakes waters, and to identify areas for further research and monitoring. Through this program, we have alerted managers to previously undetected toxins in commercial shellfish beds, and the potential for human Amnesic Shellfish Poisoning and domoic acid toxicity in marine animals. This year PMN is active in 36 states along the West Coast from CA to AK, in Lake Erie, in the Gulf of Maine, along the Southeast coast and in the Gulf of Mexico.

**National Ocean Service (NOS) - [Navigation Manager](#)**

NOAA's navigation managers work directly with pilots, port authorities, and recreational boating organizations in Alaska. They help identify the navigational challenges facing marine transportation in Alaska and provide NOAA's resources and services that promote safe and efficient navigation. Navigation managers are on call to provide expertise and NOAA navigation response coordination in case of severe coastal weather events or other marine emergencies. The Office of Coast Survey has a navigation manager in Anchorage, AK to support mariners and stakeholders in Alaskan waters.

**National Ocean Service (NOS) - [Navigation Response Team](#)**

The Office of Coast Survey (OCS) maintains the nation's nautical charts and publications for U.S. coasts and the Great Lakes. OCS navigation managers are strategically located in U.S. coastal areas to provide regional support to federal and state agencies in order to assist with navigational challenges. The Office of Coast Survey's Navigation Response Branch (NRB) conducts routine and emergency hydrographic surveys; and working with the regional Navigation Managers, navigation response teams (NRT) work around-the-clock after storms to speed the reopening of ports and waterways. During emergency response, the NRTs provide time-sensitive information to the U.S. Coast Guard or port officials, and transmit data to NOAA cartographers for updating Coast Survey's suite of navigational charts. Mobile integrated response team (MIST) kits are available to Alaska that can be used on a vessel of opportunity and staffed by NRT members.

**National Ocean Service (NOS) - [Digital Coast](#)**

The Digital Coast is a focused information resource developed to meet the unique needs of coastal communities. Developed and maintained by NOAA's Office for Coastal Management, content comes from hundreds of organizations,



including federal, state, and local agencies, plus private sector and non-profit contributors. The Digital Coast website provides not only site-specific coastal data, but also related the tools, training, and information needed to make these data useful for coastal decision makers.

**National Ocean Service (NOS) - [Coastal and Estuarine Land Conservation Program](#)**

The Coastal and Estuarine Land Conservation Program brings conservation partners together to protect coastal and estuarine lands considered important for their ecological, conservation, recreational, historical, or aesthetic values. Subject to availability of funding, the program provides state and local governments with matching funds to purchase coastal and estuarine lands or obtain conservation easements for important lands threatened by development. Since 2002, the program has protected more than 110,000 acres of coastal land nationally, including over 16,000 acres protected as in-kind matching contributions. Two project grants have been completed in Alaska, and these lands are protected in perpetuity.

**National Ocean Service (NOS) – [National Coastal Resilience Fund](#)**

The National Coastal Resilience Fund is a partnership effort between NOAA and the National Fish and Wildlife Foundation (NFWF) to restore, increase, and strengthen natural infrastructure to protect coastal communities, while also enhancing habitat for fish and wildlife. In Alaska, four projects have been awarded: 1 in FY18, 2 in FY19 and 1 in FY20.

**National Ocean Service (NOS) - [OR&R Arctic Environmental Response Management Application](#)**

During an emergency, responders and decision-makers need the best available information to protect and restore our coasts from threats like oil and chemical pollution. Arctic Environmental Response Management Application (ERMA®) fills that need with both static and real-time data, such as Environmental Sensitivity Index maps, ship locations, weather, and ocean currents, in a centralized, easy-to-use format for environmental responders and decision makers. As Arctic energy exploration and transportation increases, responders must have access to this information in remote locations. Standalone Arctic ERMA increases ERMA's usefulness by allowing responders to use the tool without an internet connection. Arctic ERMA now has polar projection base maps, which give a less distorted view than the standard Mercator flat-map perspective. For emergency responders trying to estimate how far an oil spill may be from landfall, the new polar projections are important for preparing response plans. Additionally, the polar projections improve the ability to look at all of the Arctic countries at once, helping with international perspectives and communications.

**National Ocean Service (NOS) - OR&R [Scientific Support Coordinator and Regional Resource Coordinator](#)**

NOAA's Office of Response and Restoration (OR&R) brings decades of experience, technical expertise and scientific analysis in response to oil and hazardous chemical spills. Eleven regionally based Scientific Support Coordinators (SSCs) harness the input of a multi-disciplinary team to address issues such as oil slick trajectory forecasting, environmental tradeoffs, best practices, resources at risk, and chemical hazard assessment to reduce risks to coastal habitats and resources. OR&R also helps develop preparedness plans that identify spill response actions with the greatest environmental benefit and trains hundreds of members of the response community each year on the scientific and technical aspects of spills.

OR&R identifies and quantifies environmental injury caused by releases of oil and hazardous materials. Our network of Regional Resource Coordinators (RRC's) in Alaska work on multi-disciplinary scientific, economic, and legal teams with the goal of securing the appropriate amount and type of restoration required to restore injured NOAA trust resources and compensate the public for their lost use. We collaborate with NMFS Restoration Center and NOAA General Council through the Damage Assessment, Remediation, and Restoration Program (DARRP) to ensure the process is efficient, legally defensible and restoration focused. Alaska's SSC and RRC are based in Anchorage. To date, DARRP has recovered over \$687M for restoration of natural resources injured by oil spills in Alaska, most notably the Exxon Valdez. We continue to work on assessment and restoration for four other oil spills.

**National Ocean Service (NOS) - OR&R [Marine Debris Projects and Partnerships in Alaska](#)**

The NOAA Marine Debris Program (MDP) leads national and international efforts to research, prevent, and reduce the impacts of marine debris. The MDP supports marine debris removal, prevention, and research projects in partnership with state and local agencies, tribes, non-governmental organizations, academia, and industry. The MDP Alaska Regional Coordinator supports coordination efforts with regional stakeholders, provides support to grant-funded projects, tracks progress of projects, and conducts regional marine debris outreach to local audiences. In Alaska, the MDP is partnering with the National Park Service to develop and install outreach and educational exhibits about marine debris in the Bering Land Bridge National Preserve and Kenai Fjords National Park. The MDP also works with local communities and organizations to remove marine debris and monitor for changes and trends in the type and amount of debris. Recent projects include the **Island Trails Network (ITN)** working with local partners to remove debris from remote beaches in the Kodiak Archipelago and Alaska Peninsula, and the **Aleut Community of St. Paul Island** removing debris from St. Paul and St. George Island shorelines in the Pribilof Islands. Prevention is also a focus. The Center for Alaskan Coastal Studies in Homer is expanding a zero-waste program that encourages and empowers local students, schools, and businesses to assess and change the amount of waste they produce, while also increasing awareness of marine debris sources and impacts. The Aleut Community of St. Paul Island is working to change attitudes and behaviors around the use and disposal of plastic packing bands on St. Paul Island and within the commercial fishing and packaging industries in the Bering Sea region through a community based social marketing campaign. The MDP is also working with the Alaska marine debris community to coordinate state-wide actions on marine debris.

**National Ocean Service (NOS) - [Ocean Guardian School Program](#)**

An Ocean Guardian School makes a commitment to the protection and conservation of its local watersheds, the world's ocean, and special ocean areas, like national marine sanctuaries. Funds are provided to schools at \$4,000 per year if the school makes this commitment by proposing and then implementing a school- or community-based conservation project. Once the school has completed its project, the school receives official recognition as a NOAA Ocean Guardian School. To date, the Ocean Guardian School Program has partnered with more than 147 schools and has reached more than 80,400 students.

**National Ocean Service (NOS) - Students for [Zero Waste Week](#)**

Students are inviting their local communities to "Go Green and Think Blue" by joining them in the annual *Students for Zero Waste Week campaign*. During this campaign led by the Office of National Marine Sanctuaries, students focus on reducing land-based waste in order to protect the health of local marine environments. These young leaders are raising awareness of how single-use plastic and other types of litter affect the health of local watersheds, national marine sanctuaries, and the ocean. In addition, some schools are looking at ways to reduce their energy use on campus with hopes of raising awareness of how the burning of fossil fuels also impacts the health of the ocean.

**National Ocean Service - [National Marine Sanctuary Nominations](#)**

NOAA has determined that the St. George Unangan Heritage sanctuary nomination has successfully met the national significance criteria and management considerations described in the sanctuary nomination process. The area under consideration by NOAA for national marine sanctuary designation may be selected for designation, but being on the inventory does not guarantee that the nominated area will become a sanctuary.

**National Ocean Service (NOS) - [U.S. Integrated Ocean Observing System \(Alaska Ocean Observing System\)](#)**

The U.S. Integrated Ocean Observing System, or IOOS®, is a federally and regionally coordinated observing system with 17 interagency and 11 regional partners. The System addresses regional and national needs for coastal, ocean, and Great Lakes data and information. This includes gathering and disseminating regional observations; data management;

modeling and analysis; education and outreach; and research and development. The Alaska Ocean Observing System (AOOS) is a collaboration of federal and state agencies, academic and research entities, and private industry and stakeholders working together to improve our ability to provide accurate information about Alaska's coastal and ocean environment and enable more informed decision-making. The AOOS focal point is the AOOS Data Assembly Center, a regional integrated data system for Alaska coastal and ocean data and information products. Priority issues in the AOOS region include ecosystem health and climate change impacts, especially ocean acidification, harmful algal blooms and marine debris; marine navigation safety; and coastal hazards, especially flooding and coastal erosion.

#### **National Weather Service (NWS) - [Alaska Buoys and Stations](#)**

The National Weather Service (NWS), through its National Data Buoy Center (NDBC), develops, deploys, operates, and maintains the current national data buoy network of moored and drifting weather buoys and land stations that serve all of the Nation's coastal states and territories. Within this network, 110 of the buoys and 51 of the land stations are maintained directly by NDBC. Located at NASA's Stennis Space Center in Mississippi, supports weather and marine warning and forecast services in real time by providing deep-ocean and coastal meteorological and oceanographic observations. These data provide valuable information used by NWS supercomputers to produce computer-generated model forecasts of the atmosphere and climate. NDBC manages the Volunteer Observing Ship program to acquire additional meteorological and oceanographic observations supporting NWS mission requirements. NDBC also operates NOAA's network of Deep-ocean Assessment and Reporting of Tsunami (DART®) stations, for the early detection and real-time reporting of tsunamis in the open ocean. Data from the DART®s are used by the National Weather Service Tsunami Warning Centers in Alaska and Hawaii to provide tsunami forecasts, warnings, and information.

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#### **Statewide**

##### **NOAA Office of Education - [Environmental Literacy Program](#)**

NOAA's Environmental Literacy Program (ELP), administered by the Office of Education, provides grants and in-kind support to advance NOAA's mission through formal (K-12) and informal education. In Alaska, ELP funded the Chugach School District (Anchorage Borough) to build the environmental literacy of children, youth, and adults so they are knowledgeable of the ways in which their community can become more resilient to extreme weather, climate change, and other environmental hazards, and become involved in achieving that resilience. Bringing together traditional Alaska Native ways of knowing and Western scientific data, Chugach and Kenai Peninsula School District's educators and students will work with NOAA science to participate in a variety of first-hand experiences. ELP supports the Alaska State Museum (Juneau Borough), which has a permanent exhibit featuring NOAA's Science On a Sphere (SOS) and is a member of NOAA's SOS Users Collaborative Network (SOS Network). The SOS Network connects over 150 science education institutions worldwide to the latest NOAA data as part of a focused effort to increase environmental literacy at all ages. ELP supports the Alaska SeaLife Center (Kenai Peninsula Borough), a member of the Coastal Ecosystem Learning Center (CELC) Network, which is a consortium of 25 aquariums and marine science education centers working together to engage the public in protecting coastal and marine ecosystems. ELP supports the Tsunami Bowl in Alaska, one of 25 regional competitions of the National Ocean Sciences Bowl (NOSB). The NOSB is an academic competition that engages high school students in learning about ocean sciences and related STEM careers while helping them become knowledgeable citizens and environmental stewards.

##### **NOAA's Cooperative Institute for Climate, Ocean, and Ecosystem Studies (CICOES).**

The purpose of the cooperative institute is to facilitate and conduct collaborative, multidisciplinary research to support NOAA's mission, educate and prepare the next generation of scientists to be technically skilled, environmentally literate, and reflect the national diversity, and engage and educate the citizenry of the Pacific

Northwest, Alaska, and the nation about human-caused impacts on ecosystem health and socioeconomic sustainability.

**National Weather Service - [NEXRAD \(WSR-88D\) Systems](#)**

NEXRAD is used to warn the people of the United States about dangerous weather and its location. This radar technology allows meteorologists to warn the public to take shelter with more notice than ever before. The NEXRAD network provides significant improvements in severe weather and flash flood warnings, air traffic safety, flow control for air traffic, resource protection at military bases, and management of water, agriculture, forest, and snow removal. NEXRAD radar has a range of up to 250 nautical miles, and can provide information about wind speed and direction, as well as the location, size, and shape of precipitation. There are 159 operational NEXRAD radar systems deployed throughout the United States and overseas, of which seven are in Alaska.

**National Marine Fisheries Service (NMFS) - [Office of Law Enforcement](#)**

NOAA's Office of Law Enforcement (OLE) protects living marine resources, sanctuaries and monuments, and critical habitat by enforcing domestic laws and supporting international treaty obligations designed to ensure these natural marine resources are available for future generations. OLE actively seeks to promote compliance with the nation's marine resource laws and takes measured enforcement action when these laws are violated. OLE directly supports NOAA's stewardship mission and NOAA Fisheries' core mission mandates through its actions to enforce and promote compliance with the marine resource protection laws and implementing regulations under NOAA's jurisdiction. Regional partners include: the U.S. Coast Guard; State of Alaska, Alaska Wildlife Troopers and Dept. of Fish & Game; U.S. Fish & Wildlife Service; and U.S. Forest Service. The Cooperative Enforcement Program also allows NOAA the ability to leverage the resources and assistance of the State of Alaska, Alaska Wildlife Troopers in direct support of the Federal enforcement mission. Effective fisheries law enforcement is critical to creating a level playing field for U.S. fishermen and enabling sustainable fisheries to support vibrant coastal communities. The Alaska Division is headquartered in Juneau, with field offices in Kodiak, Anchorage, Dutch Harbor, Homer, Seward, Sitka, Petersburg, Ketchikan.

**National Marine Fisheries Service (NMFS) - [Alaska Regional Office](#) and [Alaska Fisheries Science Center](#)**

NMFS is responsible for the management, conservation and protection of living marine resources within the United States' Exclusive Economic Zone. Using the tools provided by the *Magnuson-Stevens Act*, NMFS assesses and predicts the status of fish stocks, develops and ensures compliance with fisheries regulations, restores and protects habitat and works to reduce wasteful fishing practices, and promote sustainable fisheries. Under the *Marine Mammal Protection Act* and the *Endangered Species Act*, NMFS works to conserve and recover protected marine species. The Alaska Regional office oversees marine stewardship responsibilities in Alaska, including 70 percent of the U.S. Continental Shelf and the nation's most prolific fishing grounds. The Alaska Fisheries Science Center plans, develops, and manages scientific research programs, which generate the best scientific data available for understanding, managing, and conserving Alaska's marine resources. In addition to ongoing survey and assessment activities, the Center is engaged in cutting-edge research on emerging issues such as climate change, loss of sea ice, and ocean acidification. The primary responsibilities of the Regional Office and Fisheries Science Center are to work with the North Pacific Fishery Management Council, State of Alaska, other federal agencies, Alaskan coastal subsistence communities, and U.S. representatives participating in international fishery and marine mammal negotiations. The Regional Office is based in Juneau, AK, with field offices located in Anchorage, Kodiak, and Dutch Harbor. The Fisheries Science Center is based in Seattle, Washington, with field offices in Newport, Oregon; and in Alaska: Juneau, Anchorage, Kodiak, Dutch Harbor, St. Paul and St. George Islands, and Little Port Walter.

**National Marine Fisheries Service (NMFS) – Regional Aquaculture Coordinator**

The aquaculture coordinator leads regional efforts to foster sustainable aquaculture across the region. Alaska has a growing commercial marine aquaculture industry supported by a world class research and technology sector. Regional priorities include shellfish and seaweed farming. The Aquaculture coordinator supports regulatory efficiency, aquaculture outreach and education, and serves as liaisons with state and local agencies, tribes, non-government organizations, academia, and industry. The coordinator also works as part of NOAA's Aquaculture Program to foster sustainable U.S. marine aquaculture to increase production of seafood and support business and employment opportunities.

**National Marine Fisheries Service (NMFS) - [Deep-Sea Coral Research and Technology Program](#)**

NOAA's Deep Sea Coral Research and Technology Program is the only federal program dedicated to mapping, characterizing, and understanding deep-sea coral ecosystems, and sharing the information needed to conserve these habitats. The Program -- called for in the reauthorization of the Magnuson-Stevens Fishery Conservation and Management Act and administered by the Office of Habitat Conservation -- is working with other NOAA offices and external partners to conduct fieldwork to study the distribution, abundance, and diversity of deep sea corals and sponges. Since 2009, more than 42,500 square miles of seafloor have been mapped and surveyed for deep-sea coral habitats from Florida to Maine, in Alaska and the West Coast, and in Hawaii and the Marianas Trench. In FY 2021, research is being prioritized in Alaska, California, Oregon, and Washington.

**National Marine Fisheries Service (NMFS) and National Ocean Service (NOS) - [Damage Assessment, Remediation, and Restoration Program](#)**

NOAA's Damage Assessment, Remediation, and Restoration Program (DARRP) assesses and restores habitat, fisheries, protected species and recreational uses that have been harmed by oil spills, chemical releases, and ship groundings. Working with federal, state, and tribal entities, and responsible parties, we have recovered funding from responsible parties for restoration of critical habitats, fisheries, protected species and recreational uses nationwide. These projects promote recovery of the ecosystem and provide economic benefits from tourism, recreation, green jobs, coastal resiliency, property values and quality of life. In Alaska, the Program is currently working to restore natural resources in cases including the M/V Selendang Ayu oil spill.

**National Ocean Service (NOS) - [Regional Geodetic Advisor](#)**

The Regional Geodetic Advisor is a National Ocean Service (NOS) employee that resides in a region and serves as a liaison between the National Geodetic Survey (NGS) and its public, academic and private sector constituents within their assigned region. The Regional Geodetic Advisor in Alaska only serves the state of Alaska due to its size and unique mapping challenges. The Geodetic Advisor provides training, guidance and assistance to constituents managing geospatial activities that are tied to the National Spatial Reference System (NSRS), the framework and coordinate system for all positioning activities in the Nation. The Geodetic Advisor serves as a subject matter expert in geodesy and regional geodetic issues, collaborating internally across NOS and NOAA to ensure that all regional geospatial activities are properly referenced to the NSRS.

**National Weather Service (NWS) - [Automated Surface Observing Systems](#)**

The Automated Surface Observing Systems (ASOS) program is a joint effort of the National Weather Service (NWS), the Federal Aviation Administration (FAA), and the Department of Defense (DOD). ASOS serves as the Nation's primary surface weather observing network. ASOS is designed to support weather forecast activities and aviation operations and, at the same time, support the needs of the meteorological, hydrological, and climatological research communities. ASOS works non-stop, updating observations every minute, 24 hours a day, every day of the year observing basic weather elements, such as cloud cover, precipitation, wind, sea level pressure, and conditions, such as rain, snow, freezing rain, thunderstorms, and fog. There are 44 ASOS stations in Alaska.



**National Weather Service (NWS) - [Cooperative Observer Program](#)**

The National Weather Service (NWS) Cooperative Observer Program (COOP) is truly the Nation's weather and climate observing network of, by and for the people. More than 10,000 volunteers take observations on farms, in urban and suburban areas, National Parks, seashores, and mountaintops. The data are representative of where people live, work and play. The COOP was formally created in 1890 under the NWS Organic Act to provide observational meteorological data, usually consisting of daily maximum and minimum temperatures, snowfall, and 24-hour precipitation totals, required to define the climate of the United States and to help measure long-term climate changes, and to provide observational meteorological data in near real-time to support forecast, warning and other public service programs of the NWS. The data are also used by other federal (including the Department of Homeland Security), state and local entities, as well as private companies (such as the energy and insurance industries). In some cases, the data are used to make billions of dollars' worth of decisions. For example, the energy sector uses COOP data to calculate the Heating and Cooling Degree Days which are used to determine individuals' energy bills monthly. There are 149 COOP sites in Alaska.

**National Weather Service (NWS) - [NOAA Weather Radio All Hazards Transmitters](#)**

NOAA Weather Radio All Hazards (NWR) is a nationwide network of radio stations broadcasting continuous weather information directly from the nearest National Weather Service (NWS) forecast office. NWR broadcasts official NWS warnings, watches, forecasts and other hazard information 24 hours a day, 7 days a week. Working with the Federal Communication Commission's (FCC) Emergency Alert System, NWR is an "All Hazards" radio network, making it the single source for comprehensive weather and emergency information. In conjunction with federal, state, and local emergency managers and other public officials, NWR also broadcasts warning and post-event information for all types of hazards – including natural (such as earthquakes or avalanches), environmental (such as chemical releases or oil spills), and public safety (such as AMBER alerts or 911 Telephone outages). Known as the "Voice of NOAA's National Weather Service," NWR is provided as a public service by the NWS. NWR includes 1,100 transmitters covering all 50 states, adjacent coastal waters, Puerto Rico, the U.S. Virgin Islands, and the U.S. Pacific Territories. There are 52 NWR transmitters in Alaska.

**National Weather Service (NWS) - [Incident Meteorologists](#)**

The NWS, as mandated by Congress, provides fire weather forecast products and services to the fire and land management community for the protection of life and property, promotion of firefighter safety, and stewardship of America's public wildlands. Since 1928, this effort has included providing critical on-scene support to wildfire managers via specially-trained NWS forecasters called Incident Meteorologists (IMETs). When a fire reaches a large enough size, IMETs are rapidly deployed to the incident and set-up a mobile weather center to provide constant weather updates and forecast briefings to the fire incident commanders. IMETs are very important members of the firefighting team, as changes in the fires are largely due to changes in the weather.

**NOAA Office of Education — [Environmental Literacy Program](#)**

NOAA's Environmental Literacy Program (ELP), administered by the Office of Education, provides grants and in-kind support to advance NOAA's mission through formal (K-12) and informal education. In Alaska, ELP funded the Chugach School District (Anchorage Borough) to build the environmental literacy of children, youth, and adults so they are knowledgeable of the ways in which their community can become more resilient to extreme weather, climate change, and other environmental hazards, and become involved in achieving that resilience. Bringing together traditional Alaska Native ways of knowing and Western scientific data, Chugach and Kenai Peninsula School District's educators and students will work with NOAA science to participate in a variety of first-hand experiences. ELP supports the Alaska State Museum (Juneau Borough), which has a permanent exhibit featuring NOAA's Science On a Sphere (SOS) and is a member of NOAA's SOS Users Collaborative Network (SOS Network). The SOS Network connects over 150 science education institutions worldwide to the latest NOAA data as part of a focused effort to increase environmental literacy at all ages.



ELP supports the Alaska SeaLife Center (Kenai Peninsula Borough), a member of the Coastal Ecosystem Learning Center (CELC) Network, which is a consortium of 25 aquariums and marine science education centers working together to engage the public in protecting coastal and marine ecosystems. ELP supports the Tsunami Bowl in Alaska, one of 25 regional competitions of the National Ocean Sciences Bowl (NOSB). The NOSB is an academic competition that engages high school students in learning about ocean sciences and related STEM careers while helping them become knowledgeable citizens and environmental stewards.

**Office of Oceanic and Atmospheric Research (OAR) - [Alaska Sea Grant College Program](#)**

The National Sea Grant College Program (Sea Grant) is a federal-university partnership administered by NOAA that integrates research, extension outreach, and education. Sea Grant forms a national network of 34 programs in all U.S. coastal and Great Lakes states, Puerto Rico, and Guam. Alaska Sea Grant addresses priority coastal and marine issues affecting more than half of the entire US coastline. Current projects focus on healthy coastal ecosystems, sustainable fisheries and aquaculture, resilient communities and economies, and environmental literacy and workforce development. Alaska Sea Grant funds research projects and graduate student education throughout the University of Alaska system and at other universities. Outreach faculty in the Alaska Sea Grant Marine Advisory Program share their expertise with communities, government, industry and other concerned groups. Extension agents are located in Kodiak, Anchorage, Dillingham, Nome, Ketchikan, and Petersburg. Administrative offices are located in Anchorage, Fairbanks, and Juneau.

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